

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

INVENTORS: Carl Joseph Kraenzel                      CONFIRMATION No.: 5441  
SERIAL No.: 10/736,848                                      EXAMINER: Glenford J. Madamba  
FILING DATE: December 17, 2003                      ART UNIT: 2451  
FOR: SYSTEM AND METHOD FOR MONITORING A COMMUNICATION AND RETRIEVING  
INFORMATION RELEVANT TO THE COMMUNICATION

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**APPEAL BRIEF UNDER 37 C.F.R. § 41.37**

**Mail Stop APPEAL BRIEF - Patents**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

In response to the Final Office Action mailed **November 4, 2010** (hereinafter the "Office Action"), and further to the Notice of Appeal filed on February 4, 2011, Appellant respectfully submits an Appeal Brief pursuant to 37 C.F.R. § 41.37.

The Director is hereby authorized to charge any required fees that may be due, or credit any overpayment of same to Deposit Account No. 122158 (**Ref. No. LOT9-2001-0017-US1//042846-0312967**).

## **REQUIREMENTS OF 37 C.F.R. §41.37**

**I. 37 C.F.R. § 41.37(c)(1)(i) – REAL PARTY IN INTEREST**

The real party in interest is International Business Machines Corporation.

**II. 37 C.F.R. § 41.37(c)(1)(ii) – RELATED APPEALS AND INTERFERENCES**

There are no related appeals and/or interferences.

**III. 37 C.F.R. § 41.37(c)(1)(iii) – STATUS OF CLAIMS**

Pending: Claims 29, 30, 32, 33, 35, 36, 38, 41-56, and 58-92 are pending.

Withdrawn: No claims have been withdrawn.

Cancelled: Claims 31, 34, 37, 39, 40, and 57 have been cancelled.

Rejected: Claims 29, 30, 32, 33, 35, 36, 38, 41-56, and 58-92 stand rejected.

Allowed: No claims have been allowed.

On Appeal: The rejections of claims 29, 30, 32, 33, 35, 36, 38, 41-56, and 58-92 are appealed.

**IV. 37 C.F.R. § 41.37(c)(1)(iv) – STATUS OF AMENDMENTS**

No amendments have been entered subsequent to the mailing of Final Office Action.

**V. 37 C.F.R. § 41.37(c)(1)(v) – SUMMARY OF CLAIMED SUBJECT MATTER**

The following explanation of the claimed subject matter, with reference to the specification and/or drawing figures, is for explanation purposes only and is not to be construed, in any way, as an admission that the claims are limited to the particularly disclosed

embodiments. Rather, such description is intended to facilitate an understanding of the claims by the Board and is absolutely not intended to operate a comprehensive claim construction. The invention is not limited to the disclosed embodiments. References to the specification and drawings are exemplary only, other parts or elements of the specification and drawings may be applicable.

**a. Independent Claim 29**

According to various aspects of the invention, as recited in claim 29, for example, a method for monitoring a communication between human individuals and retrieving information relevant to the communication may be provided (e.g., Specification, ¶¶ [008], [0027]). For example, the method may be executing in a system comprising a network, a server connected to the network and hosting an information module, a first interface to a communications link for connecting the server to a remote client, and a second interface for connecting the server to at least one data source (e.g., Specification, ¶¶ [0025], [0026], [0028], [0030]-[0033]). The method may include automatically monitoring, e.g., via the first interface, a communication between a user associated with the remote client and at least one other individual (e.g., Specification, ¶¶ [0027], [0034]). The method may further include automatically determining from the monitored communication, in real-time, one or more topic words associated with the monitored communication (e.g., Specification, ¶¶ [0036]-[0045], [0058]); and automatically searching the at least one data source in real-time during the communication for the one or more topic words appearing in the monitored communication to generate search results for documents relevant to the context or the one or more key topics of the communication (e.g., Specification, ¶¶ [0046], [0047], [0059], [0060]).

**b. Independent Claim 65**

According to various aspects of the invention, as recited in claim 65, for example, a method for monitoring a communication between human individuals and retrieving information relevant to the communication may be provided (e.g., Specification, ¶¶ [008], [0027]). For example, the method may include automatically monitoring a communication

between a user and at least one other individual (e.g., Specification, ¶¶ [0027], [0034]); automatically determining from the monitored communication, in real-time, one or more topic words associated with the monitored communication (e.g., Specification, ¶¶ [0036]-[0045], [0058]); and automatically searching the at least one data source in real-time during the communication for the one or more topic words appearing in the monitored communication to generate search results for documents relevant to the context or the one or more key topics of the communication (e.g., Specification, ¶¶ [0046], [0047], [0059], [0060]).

**VI. 37 C.F.R. § 41.37(c)(1)(vi) – GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

Claims 29, 30, 35, 36, 38, 41-49, 52-56, 65-74, and 77-81 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent No. 7,206,778 to Bode, *et al.* (hereinafter “Bode”) in view of U.S. Patent No. 6,718,366 B2 to Beck, *et al.* (hereinafter “Beck”), and further in view of U.S. Patent No. 5,815,830 to Anthony (hereinafter “Anthony”) and in still further view of U.S. Patent No. 7,257,589 to Hull, *et al.* (hereinafter “Hull”); claims 89-92 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Bode, Beck, Anthony, and Hull, in still further view of U.S. Provisional Patent Application Serial No. 60/482,171 to Song, *et al.* (hereinafter “Song”); claims 58-61, 63, 82-85, and 87 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Bode, Beck, Anthony, and Hull, in still further view of U.S. Patent Application Publication No. 2001/0049688 A1 to Fratkina, *et al.* (hereinafter “Fratkina”); claim 32 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Bode, Beck, Anthony, and Hull, in still further view of U.S. Patent No. 6,976,018 to Teng, *et al.* (hereinafter “Teng”); claim 33 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Bode, Beck, Anthony, and Hull, in still further view of U.S. Patent No. 7,185,001 to Burdick, *et al.* (hereinafter “Burdick”); claims 50, 51, 75, and 76 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Bode, Beck, Anthony, and Hull and the Examiner’s “Official Notice” allegation; and claims 62, 64, 86, and 88 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Bode, Beck, Anthony and Hull, in still further view of U.S. Patent No. 5,873,056 to Liddy, *et al.* (hereinafter “Liddy”).

**VII. 37 C.F.R. § 41.37(c)(1)(vii) – ARGUMENT**

A. *The Rejection of Claims 29, 30, 32, 33, 35, 36, 38, 41-56, and 58-92 Should be Reversed Because the Examiner has Failed to Establish a Prima Facie Case of Obviousness.*

The rejection is improper, and must be reversed, for at least the reason that the Examiner has failed to establish a *prima facie* case of obviousness. Specifically, the references relied upon, either alone or in combination, do not disclose, teach, or suggest each and every feature of the claimed invention, for example, as recited in independent claims 29 and 65. For at least this reason, the rejection is improper and must be reversed.

For example, independent claim 29 recites, *inter alia*:

automatically determining from [a] monitored communication [between a user associated with a remote client and at least one other individual], in real-time, one or more topic words associated with the monitored communication; and

automatically searching [] at least one data source in real-time during the communication for the one or more topic words appearing in the monitored communication to generate search results for documents relevant to the context or the one or more key topics of the communication.

Independent claim 65 recites similar language. Although the Examiner concedes that the asserted combination of Bode and Beck does not disclose the foregoing features of the claimed invention, the Examiner relies on Anthony and Hull to cure the deficiencies of Bode and Beck.

In particular, first, the Examiner states that:

the combination [of Bode and Beck] does not explicitly disclose the additional recited features of *automatically determining one or more topic words* associated with the communication and *automatically searching* at least one data source for the one or more topic words appearing in the communication to generate search results for information relevant to the context or the one or more key topics of the communication. Nonetheless the said features are expressly disclosed by Anthony in a related endeavor.

[Office Action, pg. 8; emphasis added.]

In particular, the Examiner cites Figures 2-5; column 3, lines 2-11 and lines 16-29; column 4, line 53 – column 5, line 18; and column 5, line 65 – column 6, line 37 and lines 52-61 of Anthony as allegedly disclosing the foregoing “automatically determining” and “automatically searching” claim features. See, Office Action, pg. 9. Appellant disagrees with the Examiner’s assessment for at least the reason that although Anthony generally appears to relate to searching for pre-defined topic names in the text of a record (stored in a database) and associating ‘matching’ topic name(s) with related database record(s), Anthony fails to disclose, teach or suggest **automatically determining** topic names associated with a **communication** between two individuals, or **automatically searching** for the topic names in the **communication** to generate search results for relevant documents.

For example, Anthony describes a database of records “in which each record comprises a data portion in the form of several pages of text relating to a particular topic, and a further field in the same record contains the unique reference in the form of a topic name.” See, Anthony, col. 2, l. 65 – col. 3, l. 1. Anthony further describes that an author (or user) may input text and pictures to construct the database of topics, with each topic stored as a separate record, and that “[t]he user also defines the reference name for each topic.” See, Anthony, col. 4, ll. 41-44. Accordingly, first, Anthony’s topic names merely relate to records stored in a database, and as such, fail to disclose, teach or suggest one or more topic words associated with a **communication** between two individuals (e.g., a user of a remote client and another individual). Further, even assuming *arguendo* that Anthony’s topic names do disclose the claimed one or more topic words (which Appellant does not concede), Anthony fails to disclose, teach or suggest **automatically determining** the topic names (or words). Rather, as discussed above, Anthony merely describes that, while constructing the database of records, a user defines the topic names for the database records. Indeed, in describing that a user pre-defines and stores the topic names in the database, Anthony fails to disclose and as such, *teaches away*, from **automatically determining** the topic names associated with a communication, e.g., a monitored communication.

Furthermore, the Examiner concedes that:

the combination [of Bode, Beck and Anthony] does not explicitly [sic] disclose the additional recited features of automatically determining 'from the monitored communication, and in real-time', one or more topic words associated with the communication and automatically searching at least one data source 'in real-time during the communication' for the one or more topic words appearing in the 'monitored communication' to generate search results for documents relevant to the context or the one or more key topics of the communication". Nonetheless the said features are disclosed by Hull in a related endeavor.

[Office Action, pg. 10; emphasis added.]

In particular, the Examiner relies on Figures 1 and 3; column 2, lines 23-31; column 3, lines 22-44; column 4, lines 16-35; column 5, lines 16-26; and column 6, lines 39-55 of Hull as allegedly curing the foregoing deficiencies of Bode, Beck and Anthony. See, Office Action, pg. 11. Appellant disagrees with the Examiner's assessment for at least the reason the although Hull generally relates to automatically providing relevant information to a user based on information or documents accessed or viewed by the user, Hull fails to disclose, teach or suggest the claimed operations of automatically determining one or more **topic words** from a monitored communication (between two individuals), in **real-time**, or automatically searching for the one or more topic words in a data source in **real-time during the communication** to generate search results for relevant documents.

For example, Hull describes "server system 112 is configured to monitor information or documents [e.g., e-mail documents] accessed or viewed by the users. Based upon the document(s) viewed /accessed by the users, server 112 selects information that is likely to be relevant to the users from selection base information provided to or made accessible to server system 112." See, Hull, col. 6, ll. 39-45. However, to the extent a monitored e-mail document discloses a monitored *communication* (which Appellant does not concede), Hull is silent with regard to **determining** (either automatically, or otherwise) one or more **topic words** associated with the monitored e-mail document, much less determining the topic words from the monitored e-mail document, in **real-time**.

Further, because Hull fails to disclose automatically determining one or more topic words as claimed, Hull also fails to disclose, teach or suggest automatically searching a data source for the determined one or more topic words, let alone performing such a search in ***real-time during a communication*** between a user and another individual. For example, as discussed above, Hull merely relates to determining and selecting information which may be of interest to a particular user based on the documents (e.g., e-mail documents) viewed/accessed by the user. However, even assuming *arguendo* that Hull does describe searching in selection base information for one or more topic words associated with a monitored communication, e.g., e-mail document (which Appellant does not concede for at least the reasons discussed above), nowhere does Hull describe that such a search is performed in ***real-time during the communication*** (e.g., during an ongoing e-mail communication between the particular user and another individual). Rather, in describing that relevant information for a user is determined based on documents viewed/accessed by the user, Hull appears to describe that the relevant information is determined after the user has completed viewing/accessing the documents, e.g., e-mail documents. However, Hull provides no disclosure, teaching or suggestion regarding determining relevant information in ***real-time during a communication***, e.g., during an e-mail exchange.

For *at least* the foregoing reasons, Bode, Beck, Anthony, and Hull, either alone or in combination, do not disclose, teach, or otherwise render obvious each and every claim aspect of independent claims 29 and 65. As such, the rejection of independent claims 29 and 65 is improper and must be reversed. Claims 30, 35, 36, 38, 41-49, 52-56, 58-61, 63, 66-74, 77-85 and 87-91 depend from claims 29 and 65, respectively and therefore are also patentable over the relied upon references for the reasons noted above with respect to claims 29 and 65, as well as for the features they recite individually.



**VIII. 37 C.F.R. §41.37(c)(1)(viii) – CLAIMS APPENDIX**

**Appendix A:** The pending claims are attached in Appendix A.

**IX. 37 C.F.R. §41.37(c)(1)(ix) – EVIDENCE APPENDIX**

**Appendix B:** (None)

**X. 37 C.F.R. §41.37(c)(1)(x) – RELATED PROCEEDINGS INDEX**

**Appendix C:** (None)

**CONCLUSION**

For at least the foregoing reasons, Appellant respectfully submits that the claims allowable over the references relied upon by the Examiner. Therefore, reversal of the rejections is respectfully requested.

Date: **May 4, 2011**

Respectfully submitted,

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**APPENDIX A**

**CLAIMS**

1– 28.    **(Cancelled)**

29.       **(Previously Presented)** In a system comprising a network, a server connected to the network and hosting an information module, a first interface to a communications link for connecting the server to a remote client, and a second interface for connecting the server to at least one data source, a method for monitoring a communication between human individuals and retrieving information relevant to the communication, the method comprising:

          automatically monitoring, via the first interface, a communication between a user associated with the remote client and at least one other individual;

          automatically determining from the monitored communication, in real-time, one or more topic words associated with the monitored communication; and

          automatically searching the at least one data source in real-time during the communication for the one or more topic words appearing in the monitored communication to generate search results for documents relevant to the context or the one or more key topics of the communication.

30.       **(Previously Presented)** The method of claim 29, further comprising outputting the search results to the remote client.

31.       **(Cancelled)**

32.       **(Previously Presented)** The method of claim 29, wherein the network comprises at least one of the Internet, an intranet or a virtual private network.

33.       **(Previously Presented)** The method of claim 29, wherein the communications link comprises at least one of a digital subscriber line (DSL) connection, a digital data services (DDS)

connection, an Ethernet connection, an integrated services digital network (ISDN) line, wireless connection, or an analog modem connection.

34. **(Cancelled)**

35. **(Original)** The method of claim 29, wherein the remote client comprises at least one of a personal computer, personal digital assistant, or a wireless terminal device.

36. **(Previously Presented)** The method of claim 29, wherein the at least one data source comprises at least one database or knowledge management (KM) repository.

37. **(Cancelled)**

38. **(Previously Presented)** The method of claim 29, wherein the information module comprises an Internet web site or software application.

39-40. **(Cancelled)**

41. **(Previously Presented)** The method of claim 29, wherein the monitoring further comprises receiving the communication as input in real time.

42. **(Original)** The method of claim 29, wherein the communication comprises at least one text message.

43. **(Original)** The method of claim 42, wherein the at least one text message comprises an electronic mail message.

44. **(Original)** The method of claim 42, wherein the at least one text message comprises a plurality of text messages comprising a web chat.

45.       **(Original)** The method of claim 29, wherein the communication comprises a voice communication.
46.       **(Original)** The method of claim 45, wherein the voice communication comprises at least one of a telephone conference, or live conversation.
47.       **(Previously Presented)** The method of claim 45, wherein the monitoring further comprises receiving the voice communication as input in real time and converting it to text.
48.       **(Previously Presented)** The method of claim 29, wherein determining the one or more topic words comprises determining one or more likely active topics by filtering one or more topic words appearing in the communication using a weighted averaging algorithm.
49.       **(Previously Presented)** The method of claim 48, wherein the filtering further comprises applying the weighted averaging algorithm to the communication at a predetermined frequency.
50.       **(Previously Presented)** The method of claim 49, further comprising enabling a user associated with the remote client to specify the frequency.
51.       **(Original)** The method of claim 49, wherein the information module designates a default frequency.
52.       **(Previously Presented)** The method of claim 29, wherein providing search results to said user comprises outputting hypertext links to the search results, so that the user associated with the remote client may select the hypertext links to access the search results.

53. **(Previously Presented)** The method of claim 29, further comprising enabling the user associated with the remote client to specify one or more parameters.

54. **(Previously Presented)** The method of claim 53, further comprising enabling the user to specify the types of communication to be monitored.

55. **(Previously Presented)** The method of claim 53, further comprising enabling the user to specify the at least one data source to be searched.

56. **(Previously Presented)** The method of claim 53, further comprising enabling the user to specify the format of the search results.

57. **(Cancelled)**

58. **(Previously Presented)** The method of claim 29, wherein information relevant to the context or one or more key topics of the communication comprises one or more knowledge reports by experts, documents, or other resources associated with a context or one or more key topics of the communication.

59. **(Previously Presented)** The method of claim 29, wherein providing search results to said user comprises providing full text or a brief synopsis of each search result.

60. **(Previously Presented)** The method of claim 29, further comprising providing the user with the one or more topic words that were searched.

61. **(Previously Presented)** The method of claim 29, wherein providing search results comprises one or more of: sending the search results in an electronic mail message; presenting the search results on a designated intranet or Internet site; displaying the search results in a

pop-up window on a display device; or presenting the search results to at least one other individual.

62. **(Previously Presented)** The method of claim 29, wherein determining the one or more topic words comprises:

generating a topic vector comprising a list of several potential matches for a word;

and

refining the topic vector by comparing the topic vector with other topic vectors for a predetermined time interval or number of characters to determine if they share a similar context or one or more key topics.

63. **(Previously Presented)** The method of claim 29, wherein determining the one or more topic words comprises filtering by activity context, user context, taxonomy-parent or synonym word look-up, involved-participant context, or topical urgency context.

64. **(Previously Presented)** The method of claim 29, wherein determining the one or more topic words comprises:

generating a topic vector comprising a list of several potential matches for a word;

and

applying at least one tunable decay parameter curve to a topic vector; and

deriving a re-factored vector based on the occurrence of parameters from some predetermined time interval or number of characters in prior topic vectors.

65. **(Previously Presented)** A method monitoring a communication between human individuals and retrieving information relevant to the communication, the method comprising:

automatically monitoring a communication between a user and at least one other individual;

automatically determining from the monitored communication, in real-time, one or more topic words associated with the monitored communication;

automatically searching the at least one data source in real-time during the communication for the one or more topic words appearing in the monitored communication to generate search results for documents relevant to the context or the one or more key topics of the communication.

66.       **(Previously Presented)** The method of claim 65, wherein the monitoring further comprises receiving the communication as input in real time.

67.       **(Previously Presented)** The method of claim 65, wherein the communication comprises at least one text message.

68.       **(Previously Presented)** The method of claim 67, wherein the at least one text message comprises an electronic mail message.

69.       **(Previously Presented)** The method of claim 67, wherein the at least one text message comprises a plurality of text messages comprising a web chat.

70.       **(Previously Presented)** The method of claim 65, wherein the communication comprises a voice communication.

71.       **(Previously Presented)** The method of claim 65, wherein the voice communication comprises at least one of a telephone conference, or live conversation.

72.       **(Previously Presented)** The method of claim 65, wherein the monitoring further comprises the step of receiving the voice communication as input in real time and converting it to text.



73.       **(Previously Presented)** The method of claim 65, wherein determining the one or more topic words comprises determining one or more likely active topics by filtering one or more topic words appearing in the communication using a weighted averaging algorithm.

74.       **(Previously Presented)** The method of claim 73, wherein the filtering further comprises applying the weighted averaging algorithm to the communication at a predetermined frequency.

75.       **(Previously Presented)** The method of claim 74, further comprising enabling a user to specify the frequency.

76.       **(Previously Presented)** The method of claim 74, wherein the information module designates a default frequency.

77.       **(Previously Presented)** The method of claim 65, wherein providing search results to said user comprises outputting hypertext links to the search results, so that the user associated with the remote client may select the hypertext links to access the search results.

78.       **(Previously Presented)** The method of claim 65, further comprising enabling the user to specify one or more parameters.

79.       **(Previously Presented)** The method of claim 78, further comprising enabling the user to specify the types of communication to be monitored.

80.       **(Previously Presented)** The method of claim 78, further comprising enabling the user to specify the at least one data source to be searched.

81.       **(Previously Presented)** The method of claim 78, further comprising enabling the user to specify the format of the search results.

82. **(Previously Presented)** The method of claim 65, wherein information relevant to the context or one or more key topics of the communication comprises one or more knowledge reports by experts, documents, or other resources associated with a context or one or more key topics of the communication.

83. **(Previously Presented)** The method of claim 65, wherein providing search results to said user comprises providing full text or a brief synopsis of each search result.

84. **(Previously Presented)** The method of claim 65, further comprising providing the user with the one or more topic words that were searched.

85. **(Previously Presented)** The method of claim 65, wherein providing search results comprises one or more of: sending the search results in an electronic mail message; presenting the search results on a designated intranet or Internet site; displaying the search results in a pop-up window on a display device; or presenting the search results to at least one other individual.

86. **(Previously Presented)** The method of claim 65, wherein determining the one or more topic words comprises:

generating a topic vector comprising a list of several potential matches for a word;

and

refining the topic vector by comparing the topic vector with other topic vectors for a predetermined time interval or number of characters to determine if they share a similar context or one or more key topics.

87. **(Previously Presented)** The method of claim 65, wherein determining the one or more topic words comprises filtering by activity context, user context, taxonomy-parent or synonym word look-up, involved-participant context, or topical urgency context.

88. **(Previously Presented)** The method of claim 65, wherein determining the one or more topic words comprises:

generating a topic vector comprising a list of several potential matches for a word;

and

applying at least one tunable decay parameter curve to a topic vector; and

deriving a re-factored vector based on the occurrence of parameters from some predetermined time interval or number of characters in prior topic vectors.

89. **(Previously Presented)** The method of claim 29, wherein the one or more topic words associated with the monitored communication define a context or one or more key topics of the communication.

90. **(Previously Presented)** The method of claim 29, further comprising automatically providing search results to said user in real-time during the communication.

91. **(Previously Presented)** The method of claim 65, wherein the one or more topic words associated with the monitored communication define a context or one or more key topics of the communication.

92. **(Previously Presented)** The method of claim 65, further comprising automatically providing search results to said user in real-time during the communication.

**Customer No.: 52796**

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**APPENDIX B**

**EVIDENCE APPENDIX**

NONE

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**APPENDIX C**

**RELATED PROCEEDINGS INDEX**

NONE